UNCRATING/INSTALLATION INSTRUCTIONS

Amsco® Reliance® 333 Washer/Disinfector 2003/04/30 P920006-246

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A WORD FROM STERIS CORPORATION

Follow each step of the *Uncrating/Installation Instructions* in the order presented. To avoid damage to the equipment inside, open the carton *carefully*. If you find any indication of damage to the equipment (no matter how slight), show it to your supervisor.

To properly install this unit, you will need the Equipment Drawings (included at the end of this manual), showing all utility service and space requirements. If drawings cannot be located, replacement copies may be obtained by writing, faxing, or telephoning STERIS, giving the serial number and model of your unit.

Once installed, unit operation should be tested by a STERIS-trained service technician prior to your equipment usage.

If STERIS supervision is desired, for installing and starting up this equipment, contact STERIS for pricing and availability of this service in you region.

Advisory

IMPORTANT: This unit is specifically designed to only process goods as outlined in *Operator Manual* (P920006-247).

A listing of the *Safety Precautions* to be observed when uncrating, installing, and testing this equipment can be found in Section 1 of this manual. Do not begin uncrating/installing the equipment until you have become familiar with this information.

Any alteration of this equipment not authorized or performed by STERIS which could affect equipment operation will void the warranty, could adversely affect high-level disinfection efficacy, could violate national, state, and local regulations, and could jeopardize your insurance coverage.

To assure operators are adequately trained in the safe use of the equipment, STERIS recommends that:

- all personnel who operate or maintain the equipment are trained in its operation and in its safe use;
- personnel working with toxic chemicals and vapors (if applicable) have comprehensive instructions in the unit, process, relevant health hazards, and methods to detect the escape of toxic materials;
- there is regular training of all personnel concerned with the operation and maintenance of the equipment; attendance records are maintained; and the evidence of understanding is demonstrated.

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Indications for Use

The Amsco® Reliance® 333 Washer/Disinfector is designed for automated cleaning, low-level disinfection, and drying of general surgical instruments prior to sterilization in outpatient/same-day surgery departments, surgical centers, and aumbulatory care centers. General surgical instruments, minimally invasive surgery (MIS) rigid instruments, and microsurgery insruments may be processed in this unit. These washers/disinfectors are specifically designed to only process goods as outlined in the Operator Manual. If there is any doubt about a specific material or product, contact the manufacturer of the product for the recommended washing technique.

Service Information

A thorough preventive maintenance program is essential to safe and proper unit operation. This manual contains maintenance schedules and procedures which should be followed for satisfactory equipment performance.

You are encouraged to contact STERIS concerning our comprehensive Annual Maintenance Agreements. Under the terms of these agreements, preventive maintenance, adjustments, and replacement of worn parts are done on a scheduled basis to assure equipment performance at peak capability and to help avoid untimely or costly interruptions. STERIS maintains a global staff of well equipped, factory-trained technicians to provide this service, as well as expert repair services. Please contact STERIS for details.

For contact information, see inside back cover.

Certification

The **Amsco Reliance 333 Washer/Disinfector** meets the applicable requirements of the following standards:

- Underwriters Laboratories (UL) Standard 3101, as certified by ITS Testing Laboratories, Inc.
- Canadian Standards Association CAN/CSA, 22.2, No 1010.1.

C €0123

Governing Directive for the affixing of the CE mark:

Medical Device Directive 93/42/EEC.

Standards applied to demonstrate conformity to the directives: IEC-61326-1 (1997), EN-61010-1 (1993).

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The following is a listing of the Safety Precautions which must be observed when operating and servicing this equipment. WARNINGS indicate the potential for danger to personnel, and CAUTIONS indicate the potential for damage to equipment. These Safety Precautions are repeated, where applicable, throughout the manual.

WARNING - PERSONAL INJURY AND/OR EQUIPMENT DAMAGE HAZARD:



⚠ When moving the unit, use a forklift or pallet truck.



A Before tilting the unit, ensure quick release pins are properly secured in service legs at the back of the unit and on service handles in front of the unit.



⚠ Unit is heavy. At least two people are required to move the unit.

WARNING - LACERATION/EYE INJURY HAZARD:



Mhen removing bands, wear appropriate Personal Protective Equipment (PPE), and always use a tool specifically designed to cut the bands. The bands used to secure this carton can cause personal injury when cut and tension is released.

WARNING - LACERATION HAZARD:



A When removing bolts, wear gloves to protect your hands.

WARNING – BURN HAZARD:



A Except for emergency, do not open door when cycle is in progress. In an emergency, first stop cycle by pressing the STOP touch pad, then wait for water flow to stop. Wear appropriate Personal Protective Equipment (PPE) whenever reaching into chamber.

WARNING - SLIPPING HAZARD:



To avoid slippery floor conditions, immediately wipe up any spilled liquids or condensation.

WARNING - ELECTRICAL SHOCK AND/OR BURN HAZARD:



Fasteners and star washers are used to ensure protective bonding continuity. Always reinstall any star washer which may have been removed during installation or servicing.



A Disconnect all utilities to unit before servicing. Do not service unit unless all utilities have been properly locked out. Always follow local electrical codes and safety-related work practices.



Disconnect all utilities before tilting the unit. Do not tilt unit unless all utilities have been properly locked out. Always follow local electrical codes and safety-related work practices.

WARNING - CHEMICAL BURN/EYE HAZARD:



Wear appropriate Personal Protective Equipment (PPE) when using a descaling product. Avoid contact with eyes or skin. If spilled or splashed, flush with water for 15 minutes. If swallowed, DO NOT induce vomiting. Administer an alkali with plenty of water. Seek medical attention immediately.



Detergents are caustic and can cause adverse effects to exposed tissues. Do not get in eyes, on skin, or attempt to swallow. Read and follow the precautions and instructions on the detergent label and in the Material Safety Data Sheet (MSDS) prior to handling detergent containers or servicing detergent injection pumps. Wear appropriate Personal Protective Equipment (PPE) whenever handling detergents or servicing detergent injection pumps and lines.

CAUTION - POSSIBLE EQUIPMENT DAMAGE:



When removing adhesives from stainless steel, use a small amount of non-flammable cleaning solvent. Rub in a back-and-forth motion (in same direction as surface grain). Solvent rubbed in a circular motion or applied with a wire brush or steel wool on door and chamber assemblies can be harmful to stainless steel. Do not use solvents on painted surfaces.



When unit is installed on a combustible floor and/or close to a combustible wall, the floor and/or wall must be covered with a metal sheet extending to the outer edges of the machine.



Before operating equipment, always firmly push the manifolded accessory rack into the manifold connector at the back of the wash chamber. If rack is not positioned correctly, door will not close, damage may result, and unit will be unable to effectively wash load.



Always use a silicone lubricant to lubricate squeeze tubes. Petroleum-based lubricants, such as Vaseline or grease, will cause squeeze tubes to melt.



Do not cut flexible hose (utilities and draining). The whole 105" (2,667 mm) length of the flexible hose is required when pulling out the unit for service or maintenance purposes.



Do not cut main electric supply cord. The whole 105"(2,667 mm) length of the main supply cord is required when pulling out the unit for service or maintenance purposes.



On junction box, secure main supply cord with a strain relief to prevent damage to wiring.



Do not pull unit more than 48" (1,220 mm). Flexible hoses and main supply cord could be damaged.



Do not cut printer cable. The whole 105" (2,667 mm) length of the printer cable is required when pulling out the unit for service or maintenance purposes.

Symbols on Crate

Symbol	Definition
WARNING THE POT TIELL	Tip 'n Tell Indicator "If TIP 'N TELL arrow point is blue, this package has been on its side or tipped over in transit. Make note on the bill of lading and check for damage. Any claims for tipping [will be made] on this notation."
55°C 131°F	Maximum Shipping and Storing Temperature
85% 	Maximum Humidity Level
\uparrow	This Way Up
×	Do not Stack
	Fragile
†	Keep Dry
Symbol	Definition
	Wear Safety Gloves
	Protective Earth (Ground)
^	

Symbols on Unit

Symbol	Definition
	Wear Safety Gloves
	Protective Earth (Ground)
<u></u>	Warning! Risk of Electrical Shock

Symbol	Definition
\triangle	Attention. Refer to Manual for Further Instructions
FU:	Fuse Identification
	Lubricate Squeeze Tubes with Lubricating Oil
	Power OFF on the Whole Unit
	Power ON on the Whole Unit
Symbol	Definition
Α	Amperage Rating of the Unit
V_~	Volt, Number of the Phase (Three or One [blank]) Alternating Current
kVA	Power Rating of the Unit
Hz	Hertz – Frequency of the Unit
ф	Phase of the Unit
MODEL	Model Number of the Unit

Symbols on Information Nameplate

IMPORTANT: To prevent damage to piping and recirculation components during storage and transportation, an anti-freeze solution has been put in the recirculation system. It is preferable to wait until a draining phase has been completed before opening the unit door. Before starting the test cycle, refer to the MSDS sheet included in the "Customer Information Envelope" for more information on the anti-freeze solution.

Year of Manufacture of the Unit

Number of Wires in Electrical Cable (Ground Not Included)

WIRE

YEAR

NOTE: Optional water treatment systems (Purified Water Generator System and Water Softener System) are available for installation with the Amsco® Reliance® 333 Washer/Disinfector. For more information on the uncrating, installation, and start-up of these units, please refer to Water Treatment Systems Equipment Manual (P920010-187).

2.1 General

Before starting to uncrate and install the unit, ensure that all the crates have arrived. If a crate is missing, contact STERIS.

Amsco Reliance 333 Washer/Disinfector (Figures 2-1 and 2-2)

Weight: 550 lb (250kg)
 Size (W x H x L) 41 x 45 x 42"

(1,066 x 1,143 x 1,068 mm)

Optional Countertop (Figure 2-3)

Weight: 42 lb (15 kg)
 Size (W x H x D) 37 x 6 x 33" (940 x 150 x 840 mm)

Optional Freestanding Panels (Figure 2-3)

Weight: 38 lb (17 kg)
 Size (W x H x L) 42 x 9 x 33" (1,070 x 230 x 840 mm)

Optional Installation Kit

Weight: 44 lb (20 kg)
 Size (W x H x L) 12 x 4 x 48" (304 x 102 x 1,219 mm)

2.1 Uncrating

2.2.1 Tools

Following is a list of suggested tools required for the installation of the Amsco Reliance 333 Washer/Disinfector:

- Crow bar
- Adjustable wrench
- Spirit level
- Screwdriver (slotted head and Phillips)
- Cutting pliers
- Ratchet, 1/2" socket
- Utility knife
- Hammer

2.2.2 Open Crate and Remove Skid

NOTE: When handling crates, note the following:

- 1) Equipment is heavy. Use a forklift or pallet truck to move crates.
- 2) Uncrate on level floor as close to installation site as possible.
- 1. Verify tip indicator, located on upper left side of crate (see Figure 2-1). Tip indicator contains a blue compound at the bottom of the indicator. If unit has been tipped, residue from the blue compound will be found higher up in the indicator.
 - If unit has been tipped, contact STERIS to determine if a service technician is required to inspect the equipment and determine if unit was damaged.
- 2. Position unit to open crate from the top. Provide a clear work area on all sides.
- 3. Carefully cut and remove bands from crate (see Figure 2-1). Discard bands before continuing.
- 4. Open cardboard box from the top.

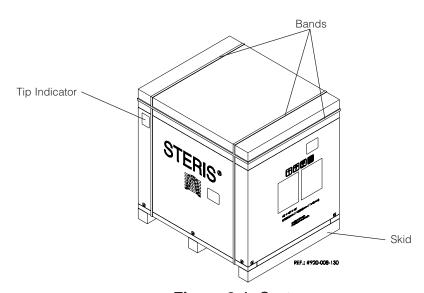


Figure 2-1. Crate

- 5. Remove Customer Information envelope including:
 - Language Package
 - Uncrating/Installation Manual
 - Operator Manual
 - Antifreeze MSDS
- 6. Pull out cardboard corners.
- 7. Remove nails holding cardboard to skid. Remove and discard cardboard side panels.
- 8. Remove and discard polystyrene wrap and cardboard from around the unit.
- 9. Open and remove foam between door and wash chamber frame (see Figures 2-2 and 2-3).



WARNING – PERSONAL INJURY AND/OR EQUIP-MENT DAMAGE HAZARD:

- When moving the unit, use a forklift or pallet truck.
- Unit is heavy. At least two people are required to move the unit.



WARNING – LACERATION/ EYE INJURY HAZARD: When removing bands, wear appropriate Personal Protective Equipment (PPE), and always use a tool specifically designed to cut the bands. The bands used to secure this carton can cause personal injury when cut and tension is released.



WARNING – LACERATION HAZARD: When removing bolts, wear gloves to protect your hands.

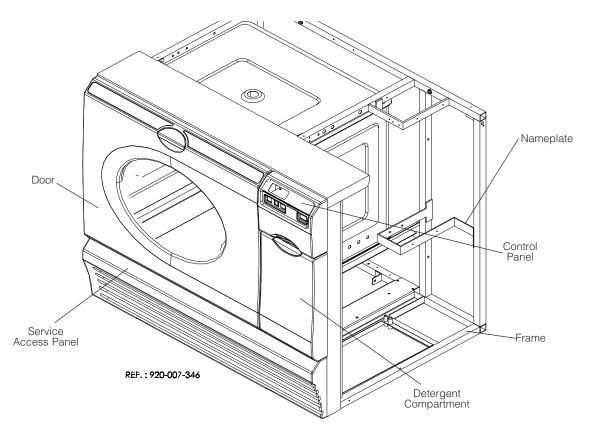


Figure 2-2. Amsco Reliance 333 Washer/Disinfector

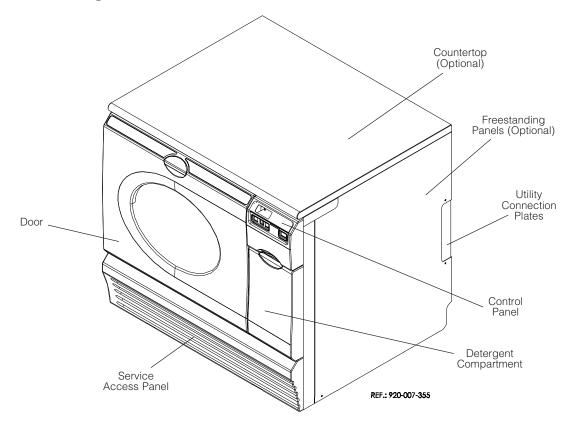
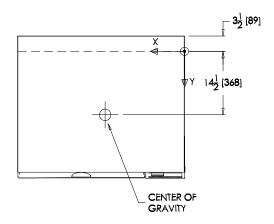


Figure 2-3. Amsco Reliance 333 Washer/Disinfector (with Optional Freestanding Panels and Countertop)

10. Close the door.

NOTE: Once door is closed, it cannot be opened until power is on. See Section 2.2.3 for special instructions to open door manually.

- 11. Verify tip indicator, located on back of unit. If unit has been tipped, contact STERIS to determine if a service technician is required to inspect the equipment and determine if unit was damaged.
- 12. With unit still mounted on skid, use a forklift or pallet truck to move equipment to installation site. Verify for center of gravity for safe handling (see Figure 2-4).



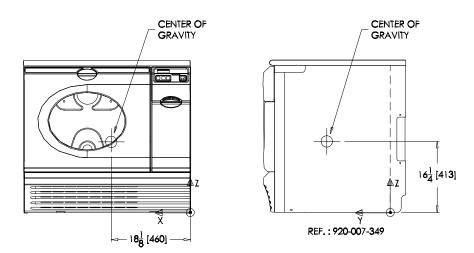


Figure 2-4. Center of Gravity

- 13. Open detergent compartment (see Figure 2-5).
- 14. Remove screw holding service access panel to frame (see Figure 2-5). Remove service access panel and set aside.
- 15. Remove four bolts securing unit base to skid (two in front and two at the back).

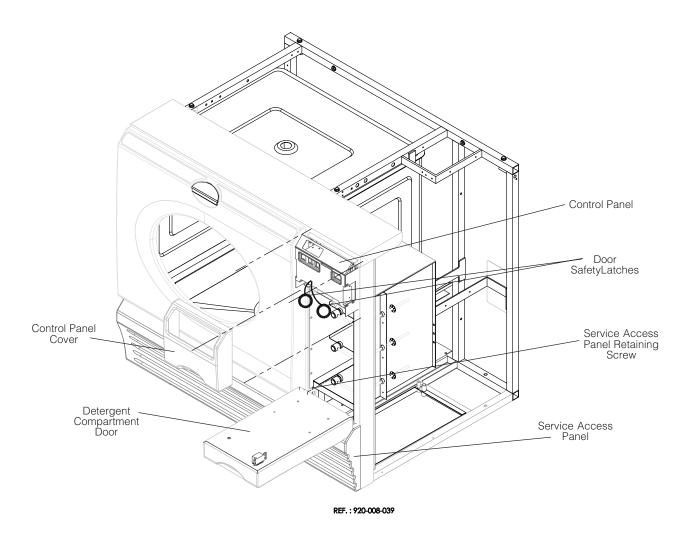


Figure 2-5. Service Access Panel Retaining Screw and Door Safety Latches

IMPORTANT: Unit must come off the skid from the back. Use a cardboard or other protective material to slide unit off the skid.

- 16. Slide unit off skid.
- 17. Roll unit close to final installation site. Keep enough work space at the back of unit to connect utilities.
- 18. Discard all packing material removed during uncrating procedures.

2.2.3 Door Manual Safety Latches

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CAUTION-POSSIBLE EQUIPMENT DAMAGE: When removing adhesives from stainless steel, use a small amount of non-flammable cleaning solvent. Rub in a back-and-forth motion (in same direction as surface grain). Solvent rubbed in a circular motion or applied with a wire brush or steel wool on door and chamber assemblies can be harmful to stainless steel. Do not use solvents on painted surfaces.

NOTE: Door cannot be opened until power is on. To open door manually, proceed as follows:

- 1. Open detergent compartment door.
- 2. Remove protective foam and tape.
- 3. Remove tape holding detergent connectors.
- 4. Locate and loosen two Phillips-head screws under control cover.
- 5. Remove control cover. Set cover aside until installation and start-up procedure is completed.
- 6. Locate door manual safety latches (see Figure 2-5). To open the door, pull on the safety latches one after the other to release the door lock.
- 7. Inside wash chamber, remove all tape securing rotary spray arms to the top of the wash chamber. Check that spray header rotates freely.
- 8. Remove foam between heating coils and bottom of wash chamber.
- 9. Remove tape securing bottom filter to bottom of wash chamber.

NOTE: Ensure filter stays in place.

10. Discard all packing material and roll unit to installation site.

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3.1 Technical Specifications

Permissible Environmental Conditions

This equipment is designed to give optimal results in an environment where maximum relative humidity is 80% for temperatures up to 88°F (31°C), decreasing linearly to 50% relative humidity at 104°F (40°C).

Noise Level

Equivalent Sound Pressure Level at work station (measured 36" [1,000 mm] away from equipment and at 63" [1,600 mm] from ground: 65.6. dB(A)). (Results determined according to ISO-3746: 1979 Standard: Acoustic Determination of Sound Power Levels of Noise Sources Survey Method).

Amperage and Power Consumption

Maximum current and power consumption:

- 208 V~, 23.1 A, 6.7 kW, 3-Phase, 60 Hz
- 230 V~, 27.9 A, 6.42 kW, 1-Phase, 50/60 Hz
- 400 V~, 12.1 A, 6.5 kW, 3-Phase, 50 Hz
- 460 V~, 10.1 A, 6.7 kW, 3-Phase, 60 Hz

Seismic Anchorage System (optional)

A Seismic Anchorage System is available for high-risk seismic zones.

3.2 Installation Requirements

An Equipment Drawing, showing all utility and space requirements, was sent to you after the order for this equipment was received. The clearance space, specified on the Equipment Drawing is necessary for proper installation, operation, and maintenance of the unit. If the document is missing or misplaced, contact STERIS, giving the serial, equipment, and model numbers of the unit. A replacement copy will be sent promptly.

NOTE: No ventilation is required if equipment is installed according to equipment drawing and follows installation instructions in this manual.

3.2.1 General Requirements

- 1. Clearance Clearance space shown on Equipment Drawing is necessary for easy installation and proper operation and maintenance of equipment.
- 2. Utility service lines:
 - Utility service requirements are shown on the Equipment Drawing.
 - To allow service on unit without shutting off building supply lines, shutoff valves (not by STERIS) should be installed on water lines to unit. Shutoff valves must be capable of being locked in **OFF** position only.
 - If unit is installed next to other equipment, shutoff valves should be positioned so that service can be shut off to one piece of equipment at a time.

3. Electricity

- Verify Equipment Drawing or nameplate (located behind unit, on right side under electrical box, see Figure 2-2) for proper voltage and amperage.
- Electrical supply is: 208 V~, 60 Hz, 3 φ; 230 V, 50/60 Hz, 1 φ; 400 V~, 50 Hz, 3 φ; 460 V~, 60 Hz, 3 φ.
- The disconnect device of the equipment must be within easy reach of the operator (preferably no more than 36" [1,000 mm] away from equipment).
- Disconnect switches must be marked as the disconnecting device for the equipment and must be capable of being locked in OFF position only.
- If unit is installed next to other equipment, disconnect switches should be
 positioned so that service can be shutoff to one piece of equipment at a
 time.
- 4. A protective conductor terminal (ground) is required (Class I Equipment). Installation Category is Overvoltage II.
- 5. Floor under unit is a noncombustible surface.
- 6. Wall behind unit is a noncombustible surface.

IMPORTANT: A protective conductor connection is essential for the safe operation of the equipment. Verify for presence of protective conductor at equipment terminal and verify if connection is well secured inside terminal with proper torque requirement.

- Torque requirement for supply conductor terminals:
 (L1-L2/N) single phase or (L1-L2-L3) 3-phase:
 - 7.1 to 8.9 lb/in (0.8 to 1 N•m)
- Torque requirement for protective conductor terminal (ground):
 - 20 lb/in (2.2 N•m)
- 5. One disconnect switch (not by STERIS) should be installed in electrical supply line near unit:

40 A (for 230 V, 1 φ units), 30 A (for 208 V, 3 φ, units), 15 A (for 460 V, 3 φ, units)

6. Use a minimum 176°F (80°C) main power supply cord.

3.2.2 CE Requirements

- 1. A European-approved type inlet bushing (strain relief) must be fitted to opening on electrical supply box to protect main supply cord.
- 2. A 40 A (for 230 V, 1 φ units) or 20 A (for 400 V, 3 φ units) disconnect switch meeting the requirements of EN-60947 (not by STERIS) should be installed in electrical supply line near unit.

A

CAUTION-POSSIBLE EQUIPMENT DAMAGE:

When unit is installed on a

combustible floor and/or

close to a combustible wall.

the floor and/or wall must

be covered with a metal sheet extending to the outer

edges of the machine.

3.3 Connect Utilities

NOTE: When connecting utilities, note the following:

- 1) Always follow local occupational health and safety regulations, as well as electric and plumbing codes, for any special requirements that may pertain to the installation of this unit.
- 2) Customer supply piping must be installed as indicated on Equipment Drawing.

3.3.1 Installation Kit (Optional)

An installation kit is available and includes the following items:

- Main electrical supply cord and connector (including one strain relief)
- Reinforced flexible hoses
- Water pressure regulators
- Service handles
- Renu-Klenz® Natural pH Detergent and Klenzyme® Enzymatic Presoak and Cleaner bag-in-a-box and Material Safety Data Sheets (MSDS).
- Instructions "How to tilt unit for service access and how to install pressure regulators" (P920009-392).

3.3.2 Utility Connection

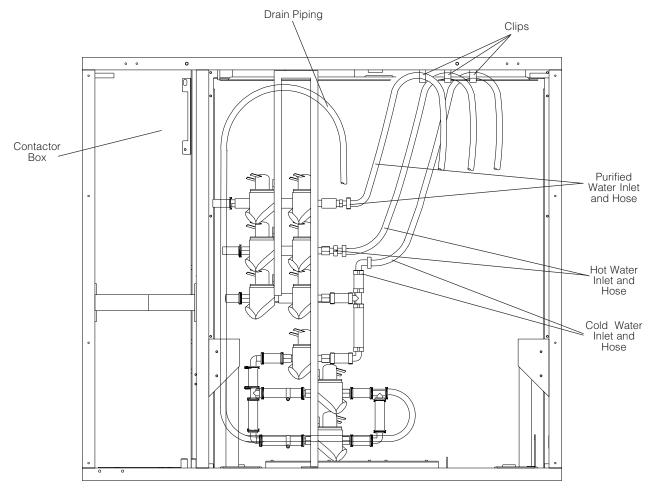


CAUTION-POSSIBLE EQUIPMENT DAMAGE: Do not cut flexible hose (utilities and draining). The whole 105" (2,667 mm) length of the flexible hose is required when pulling out the unit for service or maintenance purposes.

- 1. On upper frame section predrilled holes, install three clips using three provided truss head screws.
- 2. Connect purified water flexible hose to unit purified water inlet (see Figure 3-1).
- 3. Connect cold water flexible hose to unit cold water inlet (see Figure 3-1).
- 4. Connect hot water flexible hose to unit hot water inlet (see Figure 3-1).
- 5. Insert flexible hoses in the clips, as indicated on Figure 3-1.
- 6. Connect purified water flexible hoses to building purified water supply (see Figure 3-1).
- 7. Connect cold water flexible hose to building cold water supply (see Figure 3-1).
- 8. Connect hot water flexible hose to building hot water supply (see Figure 3-1).
- 9. Insert flexible drain hose (about 12" [300 mm]) into building drain piping (see Figure 3-1).

NOTE: To prevent problems with flexible hoses and to ease maintenance procedures, do not crush or squeeze flexible hoses between unit and wall.

10. Reinstall back protection panel.



REF.: 920-007-363

Figure 3-1. Water inlets and drain

3.4 Electrical Connections

1. On contactor box, remove five screws holding access panel into place. Remove access panel (see Figure 3-2).

NOTE: When making electrical connections, note the following:

- 1) Always follow local occupational health and safety regulations, as well as electric and plumbing codes, for any special requirements that may pertain to the installation of this unit.
- 2) Customer electrical connections must be installed as indicated on the Equipment Drawing.
- 2. Locate and open Installation Kit box containing main supply cord and strain relief.
- 3. Cut and remove tie wrap from main supply cord.
- 4. From behind unit, run main supply cord through hole on electrical box (see Figure 3-2). Secure main supply cord with strain relief.

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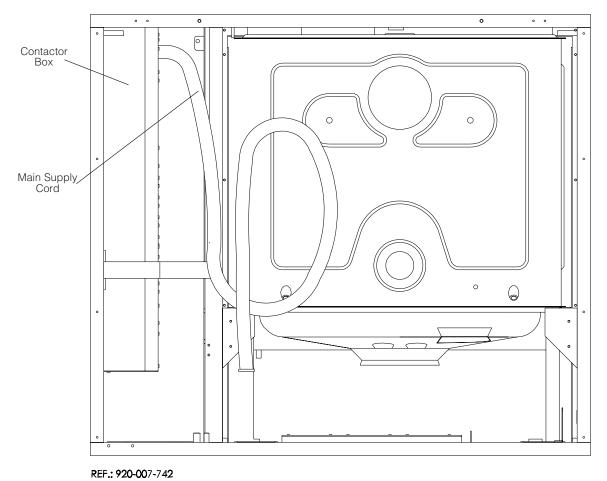


Figure 3-2. Main Supply Cord



CAUTION-POSSIBLE EQUIPMENT DAMAGE:

- On junction box, secure main supply cord with a strain relief to prevent damage to wiring.
- Do not cut flexible hose (utilities and draining). The whole 105" (2,667 mm) length of the flexible hose is required when pulling out the unit for service or maintenance purposes.

- 5. Make the following connections:
 - For 230 V, 1-phase, 60 Hz units (see Figure 3-3):
 - a. Green wire (ground wire) to ground terminal.
 - b. Black wire identified (L1) to L1 on terminal block TB1.
 - c. Red wire identified (L2) to L2/N on terminal block TB1.
 - d. White wire identified (X) to X on terminal block TB1.

NOTE: The white wire (neutral) is not used. Ensure that it is properly insulated in the junction box.

- For 208 V and 460 V, 3-phase, 60 Hz units (see Figure 3-3):
 - a. Green wire (ground wire) to ground terminal.
 - b. Black wire identified (L1) to L1 on terminal block TB1.
 - c. Red wire identified (L2) to L2 on terminal block TB1.
 - d. Orange wire identified (L3) to L3 on terminal block TB1
 - e. White wire identified (X) to X on terminal block TB1.

NOTE: The white wire (neutral) is not used. Ensure that it is properly insulated in the junction box.

• For 230 V, 1-phase, 50 Hz units (see Figure 3-3):

- a. Green/Yellow wire (ground wire) to ground terminal.
- b. Brown wire identified (L1) to L1 on terminal block TB1.
- c. Blue wire identified (N) to L2/N on terminal block TB1.
- d. Black wire identified (X) to X on terminal block TB1

NOTE: The black wire (neutral) is not used. Ensure that it is properly insulated in the junction box.

• For 400 V, 3-phase, 50 Hz units (see Figure 3-3):

- a. Green/yellow wire (ground wire) to ground terminal.
- b. Black wire #1 identified (L1) to L1 on terminal block TB1.
- c. Black wire #2 identified (L2) to L2 on terminal block TB1.
- d. Black wire #3 identified (L3) to L3 on terminal block TB1
- e. Black wire #4 identified (X) to X on terminal block TB1.

NOTE: The black wire #4 is not used. Ensure that it is properly insulated in the junction box.

- 6. Connect main supply cord to building electrical supply box. Secure main supply cord with a strain relief (not by STERIS).
- 7. Reinstall access panel on contactor box.

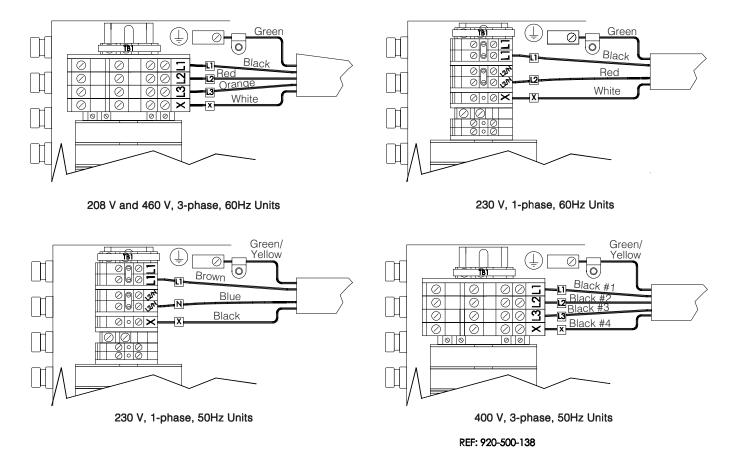


Figure 3-3. Electrical Connections

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3.5 Optional Printer

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WARNING – ELECTRICAL SHOCK AND/OR BURN HAZARD: Fasteners and star washers are used to ensure protective bonding continuity. Always reinstall any star washer which may have been removed during installation or servicing

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CAUTION-POSSIBLE EQUIPMENT DAMAGE: Do not cut printer cable. The whole 105" (2,667 mm) length of the printer cable is required when pulling out the unit for service or maintenance purposes.

An optional printer is available for use with the Amsco Reliance 333 Washer/ Disinfector.

- . Open printer box. Verify bill of material listed in the instruction.
- 2. Remove wrapping material.
- 3. Set printer aside.
- 4. Open detergent compartment door.
- 5. From side of unit, run printer cable male connection end between top cabinet panel and contactor box (see Figure 3-4).
- 6. Pull connector out under the control box (in front of unit).
- 7. Connect cable to RS232 port under the control panel. Tighten screws.
- 8. From side of unit, pull cable so that cable is not loose.
- 9. Remove $6-32 \times 1/4$ " screw on control box. Insert clip on cable. Fix cable to unit using provided $6-32 \times 1/2$ " stainless-steel screw.
- 10. Attach printer cable to wiring on control box using three tie-wraps provided with printer.
- 11. Run the cable under the control box, then behind the contactor box.
- 12. Run cable between the water inlet flexible hose and the contactor box.

NOTE: Printer cable must not touch or come into contact with the two drying hoses.

- 13. Attach cable under frame using remaining tie-wrap.
- 14. On printer, connect 25-pin null modem adaptor. Tighten screws.

15. If unit is undercounter:

- a. Drill a 2-1/2" hole in countertop.
- b. Run printer electric cord into hole and connect to building electrical outlet.
- c. Run printer cable to null modem adaptor. Tighten screws.

If unit is freestanding with freestanding panels and countertop (accessories):

- a. Run printer cable through hole in the countertop, or through freestanding panel
- b. Connect cable connector to 25-pin null modem adaptor. Tighten screws.
- c. Plug printer to building electrical outlet.

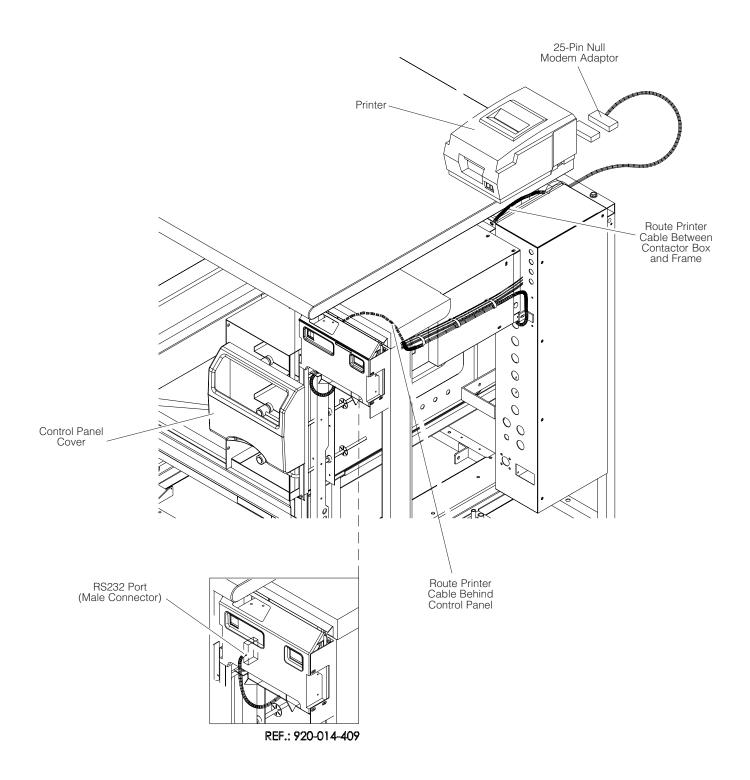


Figure 3-4. Optional Printer

920006-246

- 16. Install printer paper roll (see Figure 3-5).
 - a. Ensure paper used meets printer specifications.
 - b. Unroll paper and tear off paper end so it is straight.
 - c. Place paper roll on the paper holder and insert the paper inside the printer. Paper must feed from the bottom of the roll.
 - d. Insert the paper end in the printer paper guide. See label inside printer cover.
 - e. Tear off excess paper if needed.
- 17. Install printer ribbon cartridge (see Figure 3-6).
 - a. Before inserting new ribbon cartridge, turn knob clockwise to tighten ribbon.
 - b. Insert the ribbon cartridge while positioning the ribbon behind printer head, as shown.
 - c. Once the ribbon cartridge is inserted, turn the knob clockwise to ensure the ribbon moves freely inside the cartridge.

NOTE: Using non-approved cartridges can result in defects or other problems, and void warranty. For information on cartridges to be used, contact STERIS.

3-9

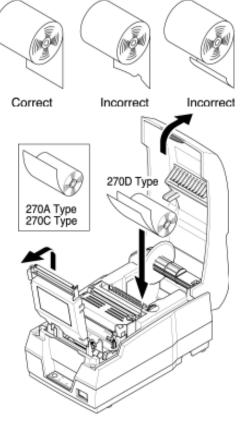


Figure 3-5. Installing Printer Paper Roll

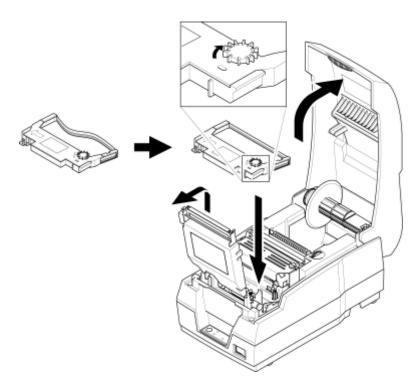


Figure 3-6. Installing Ribbon Cartridge

3.6 Final Installation

IMPORTANT: If optional Water Treatment Systems (Purified Water Generator System and/or Water Softener System) have to be installed, refer to Water Treatment Systems Equipment Manual (P920010-187) before completing the final installation of the washer/disinfector.

3.6.1 Level Unit

- 1. Push washer to final installation site.
- 2. Remove accessory from wash chamber.
- 3. To level washer/disinfector, place a spirit level on the door sill of the wash chamber and on the side of the wash chamber (see Figure 3-7).
- 4. Level unit, end-to-end and side-to-side, using leveling swivel casters. Tighten locknuts on all swivel casters.
- 5. Place accessory in the wash chamber.
- 6. If unit is under counter, push unit against the wall.
- 7. If unit is freestanding, install the optional countertop and freestanding panels before pushing unit into final position.

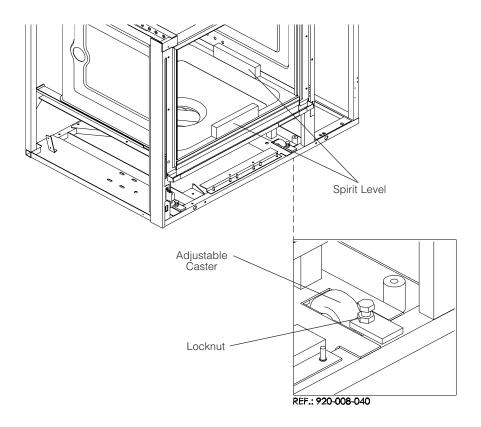


Figure 3-7. Level Unit

3.6.2 Optional Freestanding Panels

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CAUTION-POSSIBLE EQUIPMENT DAMAGE:

- Do not cut flexible hose (utilities and draining). The whole 105" (2,667 mm) length of the flexible hose is required when pulling out the unit for service or maintenance purposes.
- Do not cut main electric supply cord. The whole 105"(2,667 mm) length of the main supply cord is required when pulling out the unit for service or maintenance purposes.

- 1. Open crate, discard foam and packing material. Remove freestanding panels and hardware kit.
- 2. Freestanding panels hardware kit contains:
 - 8-32 x 1/4" screws (12)
 - Utility Connection Plates (2)
- 3. Install freestanding panels on washer/disinfector frame using provided screws (see Figure 3-8). Ensure bottom cutout is facing down.
- 4. If utility flexible hoses and electrical cord are connected from the back of the unit, install utility connections plates using provided screws (see Figure 3-8).
- 5. Push washer/disinfector against the wall. Ensure flexible hoses behind the unit(s) are not crushed or squeezed.

NOTE: When installing the washer/disinfector, note the following:

- 1) If a washer/disinfector is installed between a Purified Water Generator System and/or a Water Softener System, only two freestanding panels are required for the three units. For more information on the Water Treatment Systems, refer to the Equipment Manual (P920010-187).
- 2) The Amsco Reliance 333 Washer/Disinfector must always be installed against a wall to prevent access to electrical components. Only a qualified technician should have access to electrical components.

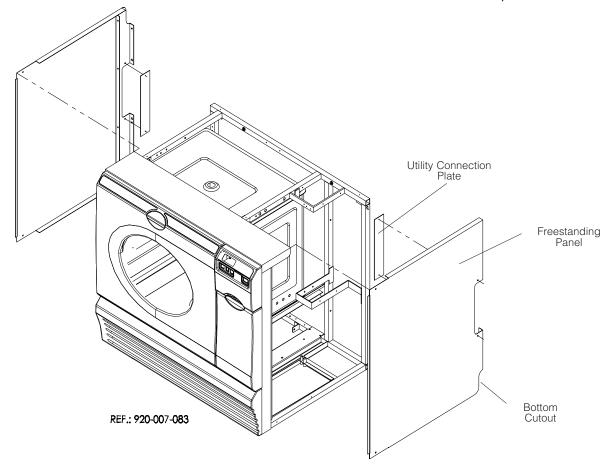


Figure 3-8. Optional Freestanding Panels

3.6.3 Optional Countertop and Rear Protection Panel

- 1. Open crate, discard foam and packing material. Remove countertop, rear protection panel, and hardware kit.
- 2. Countertop hardware kit contains:
 - Countertop
 - Rear Protection Panel
 - Rubber bumpers with washers (4)
 - Nylon shoulder washers (2)
 - 6-32 x 1/4" screws (5)
 - 1/4 x 20 nuts (2)
 - 1/4 x 1-1/4" bolts (2)
 - 8-32 x 1/2" screws (3)
 - 1/4 x 1-1/2" bolts (2)
 - Anchors (2)



CAUTION-POSSIBLE EQUIPMENT DAMAGE: Do not pull unit out more than 48" (1,220 mm). Flexible hoses and main supply cord could be damaged.

- 3. Install four rubber bumpers on top of frame using 6-32 x 1/4" screws (see Figure 3-9).
- 4. Latch countertop into position and verify alignment with sides and rear of
- 5. If countertop is not properly aligned, remove countertop, loosen screws on the brackets.
- 6. Replace countertop into position. Realign countertop with unit.
- 7. Remove countertop. Tighten screws on brackets.

NOTE: Do not tighten screws on the back brackets until countertop is properly aligned.

- 8. Latch countertop in final position.
- 9. Tighten screws on the back brackets.
- 10. If an optional remote printer is being installed, drill a 2-1/2" (63 mm) hole in the optional countertop for printer cable connection.
- 11. Install rear protection panel using provided screws. Tighten all screws.
- 12. Install the washer in final position and level the unit, end-to-end and sideto-side.
- 13. Remove flat head screw holding the service access panel to the frame.
- 14. Remove the service access panel.
- 15. Install two anti-topple brackets in front of the washer (see Figure 3-9). Install the anti-topple brackets 1/16" (2 mm) from the floor.

IMPORTANT: Do not attach the anti-topple brackets to the floor.

3 - 13

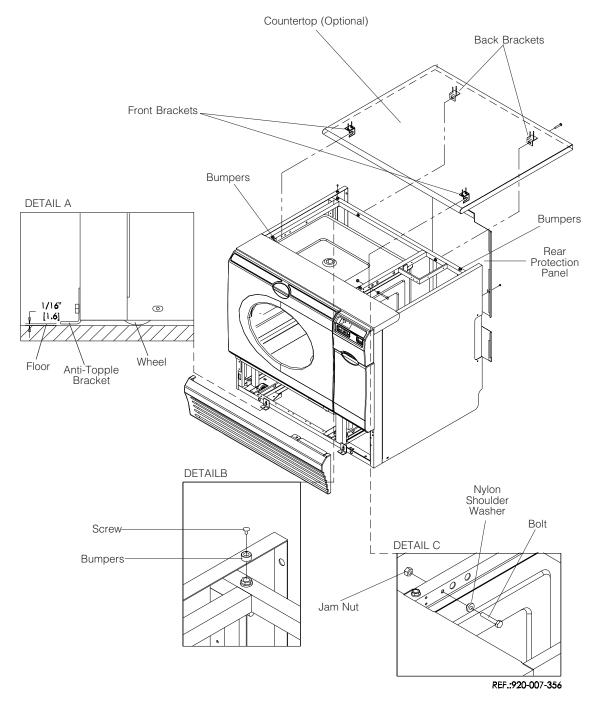


Figure 3-9. Countertop (Optional)

3.7 Cleanup



CAUTION - POSSIBLE EQUIPMENT DAMAGE: When removing adhesives from stainless steel, use a small amount of non-flammable cleaning solvent. Rub in a back-and-forth motion (in same direction as surface grain). Solvent rubbed in a circular motion or applied with a wire brush or steel wool on door and chamber assemblies can be harmful to stainless steel. Do not use solvents on painted surfaces.

- 1. Remove any adhesive on door, inside the wash chamber and on optional freestanding panels with a small amount of nonflammable cleaning solvent. Keep solvents away from all painted surfaces or damage may result.
- 2. Inspect equipment and work area to ensure all materials used during installation have been removed.
- 3. Reinstall service access panel and control panel cover.

This unit is now ready for a thorough System Field Test, Calibration, and a first-time Preventive Maintenance Checklist Inspection by a qualified STERIS Service Representative. Contact STERIS for availability and information on this service. Refer to the *Maintenance Manual* (P764329-806) for further details on these procedures.

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4-1

Installation checklist must be completed after the equipment is installed and prior to performing the operational test to ensure complete and correct installation.

NOTE: Contact STERIS to schedule a technician to test your installation and demonstrate proper equipment operation.

- ☐ Shutoff valves (not by STERIS), for maintenance purposes and capable of being closed, installed on water lines and in compliance with local occupational health and safety regulations, as well as electric and plumbing codes, for any special requirements that may pertain to installation of this unit.
- □ Disconnect switches (not by STERIS), capable of being locked in **OFF** position only, installed in electrical supply line near the unit and in compliance with local occupational health and safety regulations, as well as electric and plumbing codes, for any special requirements that may pertain to installation of this unit.

NOTE: If unit is installed next to other equipment, shutoff valves and disconnect switches should be located so that service can be shut off to one piece of equipment at a time.

☐ Unit is positioned, as shown on Equipment Drawing, with required clearance

space and in relation to building supply lines.

☐Unit is level.
Building cold water line supplies water to unit as specified on Equipmen Drawing.
Building hot water line supplies water to unit temperature as specified or Equipment Drawing.
Pure water line supplies water to unit as specified on Equipment Drawing (i equipped with Pure Water Rinse option).
If required, verify all water pressure regulators are installed as per instructions provided with the installation kit, and that pressure is adjusted as specified on Equipment Drawing.
☐ Building waste line is connected to unit as specified on Equipment Drawing
□ Electrical supply for unit is as specified on Equipment Drawing.
☐ Floor surrounding unit has nonslip and noncombustible surface or is covered with a metal sheet extending to the outer edges of the machine.
■Wall behind unit has a noncombustible surface or is covered with a meta sheet extending to the outer edges of the machine.

☐ Ensure drain hose is not squeezed between wall and washer.

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5.1 General

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WARNING – ELECTRICAL SHOCK AND/OR BURN HAZARD: Fasteners and star washers are used to ensure protective bonding continuity. Always reinstall any star washer which may have been removed during installation or servicing.



WARNING - CHEMICAL BURN/EYE HAZARD: Detergents are caustic and can cause adverse effects to exposed tissues. Do not get in eyes, on skin, or attempt to swallow. Read and follow the precautions and instructions on the detergent label and in the Material Safety Data Sheet (MSDS) prior to handling detergent containers or servicing detergent injection pumps. Wear appropriate Personal Protective Equipment (PPE) whenever handling detergents or servicing detergent injection pumps and lines.



CAUTION – POSSIBLE EQUIPMENT DAMAGE: Always use a silicone lubricant to lubricate squeeze tubes. Petroleum-based lubricants, such as Vaseline or grease, will cause squeeze tubes to melt.

Test procedures included in this section should be performed by a STERIS-trained service technician prior to normal operation of the equipment.

IMPORTANT: This unit is configured to operate on the following voltages. If your building electrical supply does not meet one of the following voltages, refer to Section 8 of the *Maintenance Manual* (P764329-806).

Maximum current and power consumption:

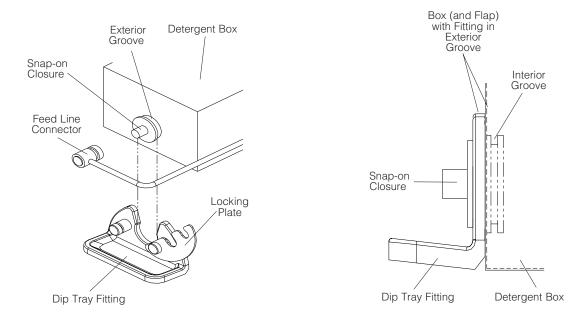
- 208 V~, 23.1 A, 6.7 kW, 3-phase, 60 Hz
- 230 V~, 27.9 A, 6.42 kW, 1-phase, 50/60 Hz (CE Marked)
- 400 V~, 12.1 A, 6.5 kW, 3-phase, 50 Hz (CE Marked)
- 460 V~, 10.1 A, 6.7 kW, 3-phase, 60 Hz
- 1. Verify that debris screen is positioned in wash chamber sump.
- 2. Verify that wash chamber is empty and all packing material (tape and nylon straps) has been removed.
- 3. If not already open, open cold and hot water supply valves, and turn building electrical supply to **ON**.
- 4. If an optional printer is present, put printer power switch to **ON** position.
- 5. Open detergent compartment and remove box containing three drip tray fittings and three lubricant bottles to lubricate squeeze tubes.
- 6. Install detergent bag-in-a-box containers (see Figure 5-1).
 - a. To open the new detergent box, press along the perforated line.

NOTE: Do not tear out the perforated cardboard flap.

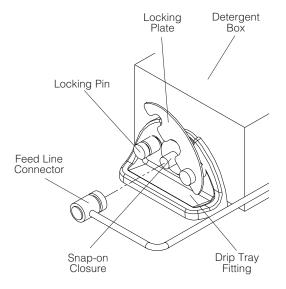
- b. Place the detergent box upside down to pull out the snap-on closure.
- c. The cardboard flap and flap must be inserted in the exterior groove of the snap-on closure.
- d. Insert the detergent box fitting in the exterior groove of the snap-on closure.

NOTE: Fitting, as well as cardboard box and flap, must be inserted in the exterior groove.

- e. Place the detergent box on the shelf. Ensure color on the box matches color on the detergent compartment sticker.
- f. Pivot the feed line connector and connect to snap-on closure (see Figure 5-1).
- g. Pivot the locking plate over the feed line connector and secure plate into the feed line connector groove and locking pin groove.



Detail A. Detail B.



Detail C.

Figure 5-1. Detergent Boxes

- 7. Repeat **Steps 6a to 6g** for Hinge-Free® Instrument Lubricant and Klenzyme® Enzymatic Presoak and Cleaner boxes.
- 8. Close detergent compartment door.
- 9. Close unit door.



10. Press **ON/OFF** pushbutton to start the unit (see Figure 5-2). For 4 seconds, display shows:

TESTING MEMORY PLEASE WAIT
STERIS CORP
COPYRIGHT (C) 2000
POLLING KEY
READY

5.2 Priming Procedure



WARNING - CHEMICAL BURN/EYE HAZARD: Detergents are caustic and can cause adverse effects to exposed tissues. Do not get in eyes, on skin, or attempt to swallow. Read and follow the precautions and instructions on the detergent label and in the Material Safety Data Sheet (MSDS) prior to handling detergent containers or servicing detergent injection pumps. Wear appropriate Personal Protective Equipment (PPE) whenever handling detergents or servicing detergent injection pumps and lines.

NOTE: Upon delivery of the unit, the HINGE FREE instrument lubricant injection is deactivated (factory-set to 0 oz/gal [0 mL/L]). If you are using the HINGE FREE instrument lubricant, it is necessary to **set the HINGE FREE injection rate to 1/4** before starting a cycle. Refer to Section 5 of the Operator Manual (P920006-247) for more information.

Before starting the operational test, it is necessary to prime the detergent pumps.

1. Loosen two screws under the control cover panel. Remove panel to gain access to the Supervisor Mode menu controls.

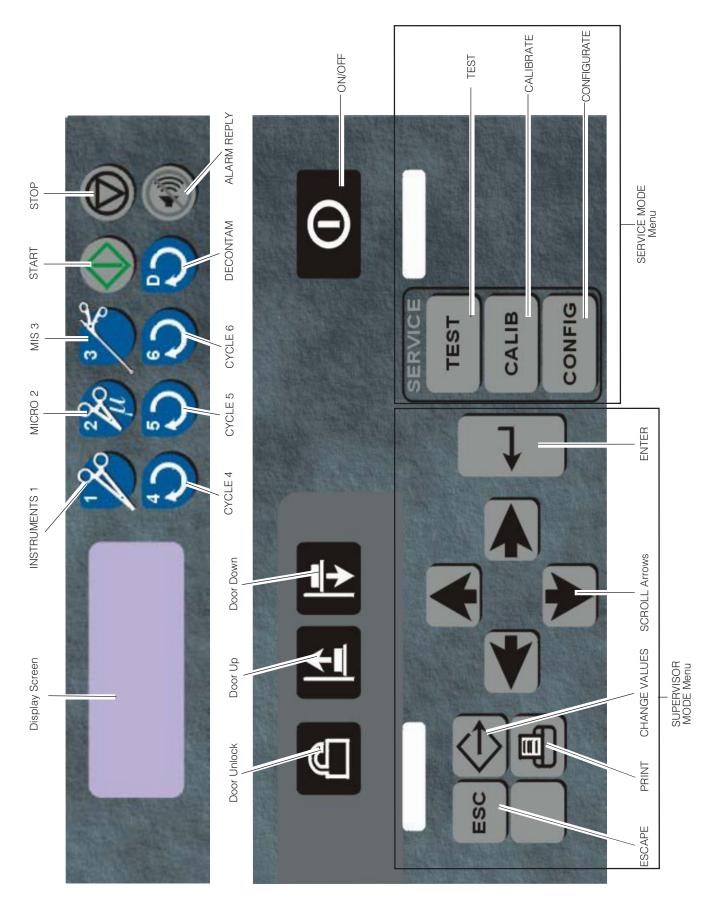


Figure 5-2. Control Panel



Press CHANGE VALUES touch pad to enter Supervisor Mode. Display shows:

SCROLL TO MODIFY MIS



3. Press **SCROLL ARROWS** (up or down) to access the PRIME PUMP menu. Display shows:

SCROLL TO MODIFY PRIME PUMP



4. Press **ENTER** to confirm selection. Display shows:

SELECT PUMP KLENZYME



5. Press **ENTER** to confirm selection. Display shows:

PRESS START TO PRIME PUMP



6. Press **START** to start priming. Verify inside wash chamber to see if detergent is being injected through the detergent injection ports located on the right side of the wash chamber.



- 7. When detergent starts injecting, press the **STOP** touch pad.
- 8. Repeat **Steps 1 to 7** for RENU KLENZ and HINGE FREE detergent pumps.

5.3 Start-Up Test

1. If the optional Load-Lifting Door system is present, test the load-lifting features as follows:



a. Press the **DOOR UNLOCK** pushbutton to open the wash chamber door. Door should open.



b. When door is completely open, press the **DOOR UP** pushbutton. Door should raise. Raise door to the highest position.



- c. Press the **DOOR DOWN** pushbutton. Door should lower.
- d. Release the **DOOR DOWN** pushbutton to stop door at mid-stroke. Door should stop lowering.
- e. Close door at a 15° angle.

NOTE: The optional Load-Lifting Door should function only with the door in the horizontal position.



f. Press the **DOOR UP** pushbutton. Door should not move. Press the **DOOR DOWN** pushbutton. Door should not move.



CAUTION – POSSIBLE EQUIPMENT DAMAGE: Before operating equipment, always firmly push the manifolded accessory rack into the manifold connector at the back of the wash chamber. If rack is not positioned correctly, door will not close, damage may result, and unit will be unable to effectively wash load.

2. Place an empty accessory rack into the wash chamber. Push the accessory rack firmly into the manifold connector at the back of the wash chamber. Close the wash chamber door.



3. Press **CYCLE 4** touch pad. Verify that name of selected cycle appears on the display screen. Display shows:

CYCLE 4 PRESS START



4. Press **START** touch pad to start the cycle. Display shows:

OPERATING MM MIN



WARNING – PERSONAL INJURY AND/OR EQUIP-MENT DAMAGE HAZARD: Before tilting the unit, ensure quick release pins are properly secured in service legs at the back of the unit and on service handles in front of the unit.



WARNING – BURN HAZ-ARD: Except for emergency, do not open door when cycle is in progress. In an emergency, first stop cycle by pressing the STOP touch pad, then wait for water flow to stop. Wear appropriate Personal Protective Equipment (PPE) whenever reaching into chamber.

NOTE: If the START touch pad is not pressed within 4 seconds, display automatically returns to the READY screen.

5. Behind Service Access Panel, inspect detergent pumps and tubing for leaks. If any leaks occur, tighten clamps and unions.

NOTE: It is possible to tilt the unit to access components located under the wash chamber. Refer to Section 8 of Maintenance Manual (P764329-806) for more information on the Tilting Procedure.

IMPORTANT: To prevent damage to piping and recirculation components during storage and transportation, an **antifreeze solution** has been put in the recirculation system. It is preferable to wait until a draining phase has been completed before opening the unit. Before starting the test cycle, refer to the **MSDS** sheet included in the Customer Information Envelope.

- During the Pre-wash 1 treatment, verify that the wash chamber and accessory rotary spray arm assemblies are rotating freely (one rotation per second).
- 7. If rotary spray arm assemblies are rotating too slowly, press **STOP** touch pad to interrupt the cycle. Display shows:

DRAINING PLEASE WAIT

920006-246



WARNING – ELECTRICAL SHOCK AND/OR BURN HAZARD: Disconnect all utilities to unit before servicing. Do not service unit unless all utilities have been properly locked out. Always follow local electrical codes and safety-related work practices.

8. When draining is completed, display shows:

START = RESUME STOP = CANCEL



9. If the *Open Door Before Thermal* feature is enabled, press **DOOR UN-LOCK** pushbutton to open the wash chamber door.

NOTE: If the Open Door Before Thermal feature is not enabled, open door manually. See Section 2.2.3, Door Manual Safety Latches.

- 10. Pull out the accessory rack.
- 11. Remove the rotary spray arm assemblies (see Figure 5-3).
- 12. Loosen retaining screw and remove rotary spray assembly.

NOTE: There are two loose bushings between the rotary spray arm hub and the top of the wash chamber. When lowering the rotary spray arm, the bushings may fall. Ensure to reinstall all the rotary spray arm components in the proper order (see Figure 5-3).

- 13. Clean rotary spray arms under running water if necessary.
- 14. Reinstall rotary spray arms to hub ensuring slots on spray arms and holes in hub are properly aligned (see Figure 5-3).

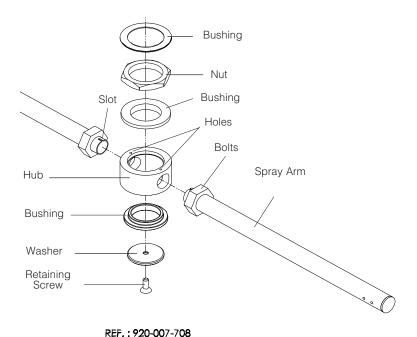


Figure 5-3. Rotary Spray Arms

WARNING – SLIPPING HAZARD: To avoid slippery floor conditions, immediately wipe up any spilled liquids or condensation.

15. Reinstall the accessory rack in the wash chamber.



- 16. Close the door and press **START** touch pad to resume cycle.
- 17. Allow cycle to run to completion. Use the *Operator Manual* (P920006-247) to verify proper unit and cycle operation.
- 18. Verify alarm buzzer sounds, and the following message appears on the display screen once cycle is complete:

CYCLE COMPLETE READY TO UNLOAD



19. Press **ALARM REPLY** touch pad to silence buzzer.



- 20. Push **DOOR UNLOCK** pushbutton to unlock wash chamber door.
- 21. Open the wash chamber door. As soon as door is open, verify that display shows:

READY HH:MM MM-DD-YY

- 22. Allow chamber components and rack to cool before unloading.
- 23. Remove and clean debris screen under running water. Replace debris screen in wash chamber sump.
- 24. Remove screens from unit supply-line strainers and check for debris. Clean supply line strainers if necessary.
- 25. Reinstall control panel cover.

WASHER IS NOW READY FOR NORMAL OPERATION. Contact STERIS to schedule a demonstration on how to operate the equipment. Refer to the *Operator Manual* (P920006-247) for operating instructions.

IMPORTANT: After a few weeks of operation, inspect unit for leaks. If necessary, tighten all clamps and connections.

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